

WHAT IS CLAIMED IS:

1. A method of evaluating the power transmission ability of a frictional power transmission belt which is wound around pulleys to transmit power, said method comprising the steps
5 of:

for said frictional power transmission belt, finding a relational expression between WD and ST where WD is the factor which is pressing force to said pulleys per belt unit length and ST is the factor which is an effective tension of
10 said frictional power transmission belt per unit contact length; and

from said relational expression found, evaluating the power transmission ability of said frictional power transmission belt.

15 2. The method of claim 1,
wherein said frictional power transmission belt is a flat belt.

3. The method of claim 1,
wherein said frictional power transmission belt is a V
20 ribbed belt.

4. The method of claim 1,
wherein said frictional power transmission belt is a V belt.

5. The method of claim 4,

wherein said V belt is a V belt for high power transmission which comprises an endless tension member and multiple blocks which are fixedly engaged with said endless tension member.

6. A method of aiding the design for a belt drive system with pulleys and a frictional power transmission belt which is wound around said pulleys to transmit power, said method comprising the steps of:

for said frictional power transmission belt, finding a relational expression between WD and ST where WD is the factor which is pressing force to said pulleys per belt unit length and ST is the factor which is an effective tension of said frictional power transmission belt per unit contact length;

from said relational expression found, evaluating the power transmission ability of said frictional power transmission belt; and

based on said belt power transmission ability evaluated, predicting a transmission condition for said belt drive system, using the power transmission ability of said frictional power transmission belt.

7. The method of claim 6, wherein a pulley-belt layout is predicted as said transmission condition.

8. The method of claim 6,

wherein said frictional power transmission belt is a variable speed V belt; and

wherein a range of variable speed for said variable speed V belt is predicted as said transmission condition.

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